| Record Nr. | UNISA996466108103316 |
|-------------------------|--|
| Titolo | Informatics Education - The Bridge between Using and Understanding Computers [[electronic resource]] : International Conference on Informatics in Secondary Schools - Evolution and Perspectives, ISSEP 2006, Vilnius, Lithuania, November 7-11, 2006, Proceedings / / edited by Roland Mittermeir |
| Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2006 |
| ISBN | 3-540-48227-X |
| Edizione | [1st ed. 2006.] |
| Descrizione fisica | 1 online resource (XVIII, 322 p.) |
| Collana | Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4226 |
| Disciplina | 004.071 |
| Soggetti | Computer science Education—Data processing Computers and civilization Microcomputers Theory of Computation Computers and Education Computers and Society Personal Computing |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | "The 2nd International Conference"Pref. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | The Spectrum of Informatics Education Evolution of the Cultural- Based Paradigm for Informatics Education in Secondary Schools – Two Decades of Lithuanian Experience Discovering Informatics Fundamentals Through Interactive Interfaces for Learning Contributing to General Education by Teaching Informatics Bridging the Gap Between School Computing and the "Real World" Programming Versus Application Databases as a Tool of General Education Handling the Diversity of Learners' Interests by Putting Informatics Content in Various Contexts Computer Science in English High Schools: We Lost the S, Now the C Is Going Teaching Computing in Secondary Schools in a Dynamic World: Challenges and Directions Teaching Algorithmics and Programming Functions, |

1.

Objects and States: Teaching Informatics in Secondary Schools -- From Intuition to Programme -- On Novices' Local Views of Algorithmic Characteristics -- Learning Computer Programming with Autonomous Robots -- A Master Class Software Engineering for Secondary Education -- Algorithmic Thinking: The Key for Understanding Computer Science -- Issues of Selecting a Programming Environment for a Programming Curriculum in General Education -- Object-Oriented Programming at Upper Secondary School for Advanced Students -- The Role of ICT-Education -- Informatics Education at Austria's Lower Secondary Schools Between Autonomy and Standards -- Development of an Integrated Informatics Curriculum for K-12 in Korea -- Contribution of Informatics Education to Mathematics Education in Schools -- Exams and Competitions -- Evolution of Informatics Maturity Exams and Challenge for Learning Programming -- Objective Scoring for Computing Competition Tasks -- Teacher Education and School Development -- Modelling and Evaluating ICT Courses for Pre-service Teachers: What Works and How It Works? -- Sustaining Local Identity, Control and Ownership While Integrating Technology into School Learning -- eLearning -- Designing Digital Technologies for Layered Learning -- ePortfolios in Australian Schools: Supporting Learners' Self-esteem. Multiliteracies and Reflection on Learning --Metacognition in Web-Based Learning Activities -- Development of Modern e-Learning Services for Lithuanian Distance Education Network LieDM -- Localization and Internationalization of Web-Based Learning Environment.

Sommario/riassunto

Although the school system is subject to specific national regulations, didactical issues warrant discussion on an international level. This applies specifically to informatics didactics. In contrast to most other scientific disciplines, informatics undergoes substantial technical and scientific changes and shifts of paradigms even at the basic level taught in secondary school. Moreover, informatics education is under more stringent observation from parents, potential employers, and policy makers than other disciplines. It is considered to be a modern discipline. Hence, being well-educated in informatics seemingly ensures good job perspectives. Further, policy makers pay attention to informatics education, hoping that a young population well-educated in this modern technology will contribute to the future wealth of the nation. But are such high aspirations justified? What should school aim at in order to live up to such expectations? ISSEP 2005, the 1st International Conference on Informatics in Secondary Schools -Evolution and Perspectives already showed that informatics teachers have to bridge a wide gap [1, 2]. On one hand, they have to show the inherent properties that informatics (or computer science) can contribute to general education. On the other hand, they are to make pupils computer literate. Under the constraint of limited time available for instruction, these different educational aims come into conflict. Computer-supported teaching or eLearning is to be considered distinct from informatics education. However, in many countries, informatics teachers still have to support the eTeaching activities of their colleagues.